

# **GIGABYTE™**

## **GIGABYTE Personal Computer**

### **User's Manual**

Rev. 1004



## **AI TOP 100 Z890**

**Premium Gaming & AI Empowered Desktop PC**

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## **Documentation Classifications**

In order to assist in the use of this product, GIGABYTE provides the following types of documentations:

- For quick set-up of the product, read the Quick Start Guide included with the product.
- For detailed product information, carefully read the User's Manual.

For product-related information, check on our website at: <https://www.gigabyte.com>



To help reduce the impact of global warming, this product's packaging uses materials that are recyclable and reusable where possible. GIGABYTE is committed to protecting the environment together with you.

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## Box Contents

- ☒ AI TOP 100 Z890 Premium Gaming & AI Empowered Desktop PC <sup>(Note)</sup>
- ☒ Quick Start Guide
- ☒ Antenna
- ☒ Accessory Cables
- ☒ Case Accessory

\* The box contents above are for reference only and the actual items shall depend on the product package you obtain. The box contents are subject to change without notice.

(Note) Model name of the AI TOP 100 Z890 Premium Gaming & AI Empowered Desktop PC:

\* AT1I9N9-0000

\* AT1I9N9-0001

\* AT1I9N9-0002

\* AT1I9N9-0003

\* AT1I9N9-0004

\* AT1I9N9-0005

\* AT1I9N9-0006

\* AT1I9N9-0007

\* AT1I9N9-0008

# Chapter 1 Hardware Setup

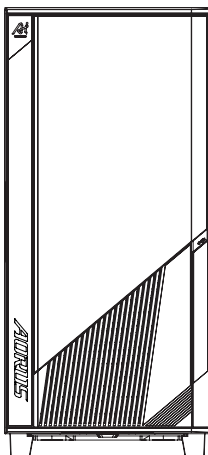
## 1-1 Safety Information

- Before connecting to the power outlet, make sure that the voltage rating of the power cable is compatible with the power specification in the country where you are located.
- The power cord plug must be connected to a properly wired and grounded power outlet.
- Be sure that the power outlet you plug the power cord into is easily accessible and located as close to the equipment operator as possible. When you need to disconnect power to the equipment, be sure to unplug the power cord from the electrical outlet.
- Do not touch the plug with wet hands, otherwise easily cause electric shock.
- Protect the power cord from being tread upon or pinched, particularly at the plug.
- To avoid damage of internal component, do not place the product on a vibrating surface.
- Operating temperature: 5~35°C.
- Do not place the product near any heat sources such as electric radiators, heat registers, stoves or other devices (including amplifiers) that produce heat.
- The holes or openings on this product are for ventilation to ensure reliable operation of the product and to protect it from overheating. Do not cover or block the ventilation holes with any objects.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
- Never spill liquid of any kind onto or into the product.
- Do not use this product near water, drinks, or all types of liquids. Do not expose this apparatus to rain, liquid or moisture. Failure to do so may result in electric shock or damage.
- This product is not water proof or oil-proof.
- Clean the equipment with a soft, dry cloth.
- The manufacturer specifies that the thumbscrews normally should be tightened with a screwdriver, use of thumbscrews is not considered to compromise the basic principles of safety associated with the Safety Standard.
- For the motherboard battery replacement, refer to the motherboard's User Manual.

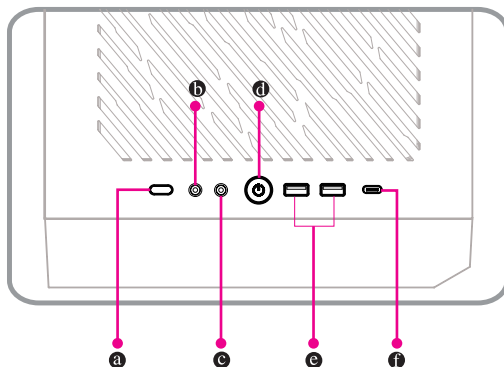
## 1-2 Hardware Information

### System Overview

Front View



Top View



#### **a Reset Button**

The reset button allow users to quickly reset the computer

#### **b Mic In**

The mic in jack.

#### **c Line Out**

The line out jack.

#### **d Power Button**

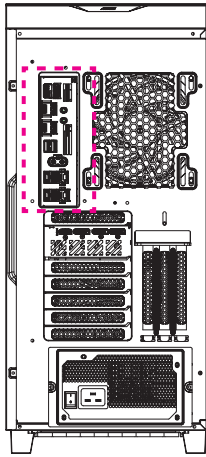
The power button allows users to turn on/off the computer.

#### **e USB 3.2 Gen 1 Port**

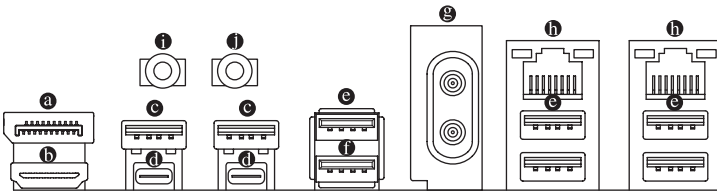
The USB 3.2 Gen 1 port supports the USB 3.2 Gen 1 specification and is compatible to the USB 2.0 specification. Use this port for USB devices.

#### **f USB Type-C® Port (USB 3.2 Gen 2x2 Support)**

The reversible USB port supports the USB 3.2 Gen 2x2 specification and is compatible to the USB 3.2 Gen 2, USB 3.2 Gen 1, and USB 2.0 specifications. Use this port for USB devices.



**Back View-A**



### **a DisplayPort In port**

The DisplayPort In port offers video outputs to the motherboard. Refer to the pictures below and the **f Thunderbolt™ 5 Connector (USB4® USB Type-C® port)** introduction for more information.



**Step 1:**  
Connect your DisplayPort cable or Mini-DisplayPort cable (purchased separately) from the graphics card to the DisplayPort In port on the back panel.



**Step 2:**  
Then connect the USB Type-C® or DisplayPort devices to **f Thunderbolt™ 5 Connector (USB4® USB Type-C® port)** to complete.

## **h HDMI Port**



The HDMI port is HDCP 2.3 compliant and supports Dolby TrueHD and DTS HD Master Audio formats. It also supports up to 192KHz/24bit 7.1-channel LPCM audio output. You can use this port to connect your HDMI-supported monitor. The maximum supported resolution is 4096x2160@60 Hz, but the actual resolutions supported are dependent on the monitor being used.



After installing the HDMI device, make sure to set the default sound playback device to HDMI. (The item name may differ depending on your operating system.)

## **o USB 3.2 Gen 1 Port**

The USB 3.2 Gen 1 port supports the USB 3.2 Gen 1 specification and is compatible to the USB 2.0 specification. Use this port for USB devices.

## **o Thunderbolt™ 5 Connector (USB4® USB Type-C® Port)**

The connector supports standard DisplayPort and Thunderbolt™ video outputs. You can connect a standard DisplayPort/Thunderbolt™ monitor to this connector with an adapter. The Thunderbolt™ connector can daisy chain up to five Thunderbolt™ devices. Because of the limited I/O resources of the PC architecture, the number of Thunderbolt™ devices that can be used is dependent on the number of the PCI Express devices being installed. You can adjust the Thunderbolt™ settings under Settings\Thunderbolt Configuration in BIOS Setup. The maximum supported resolution is 7680x4320@60 Hz via single display output, but the actual resolutions supported are dependent on the monitor being used. Also, the connector is reversible and supports the USB4® specification and is compatible to the USB 3.2 Gen 2x2, USB 3.2 Gen 2, USB 3.2 Gen 1, and USB 2.0 specifications. Use this port for USB devices.

## **o USB 3.2 Gen 2 Type-A Port (Red)**

The USB 3.2 Gen 2 port supports the USB 3.2 Gen 2 specification and is compatible to the USB 3.2 Gen 1 and USB 2.0 specification. Use this port for USB devices.

## **o USB 3.2 Gen 2 Type-A Port (Red) (Q-Flash Plus Port)**

The USB 3.2 Gen 2 port supports the USB 3.2 Gen 2 specification and is compatible to the USB 3.2 Gen 1 and USB 2.0 specification. Use this port for USB devices. Before using Q-Flash Plus<sup>(Note)</sup>, make sure to insert the USB flash drive into this port first.

## **o Antenna Connectors (2T2R)**

Use this connector to connect an antenna.



Ensure the antenna is securely connected to the antenna connectors and then aim the antennas correctly for better signal reception.

## **h RJ-45 LAN Port**

The Gigabit Ethernet LAN port provides Internet connection at up to 10 GB data rate. The following describes the states of the LAN port LEDs.

Speed LED

Activity LED



LAN Port

Speed LED:

| State  | Description                                   |
|--------|-----------------------------------------------|
| Green  | 10 Gbps data rate                             |
| Orange | 5 Gbps/2.5 Gbps/1 Gbps/<br>100 Mbps data rate |

Activity LED:

| State    | Description                                    |
|----------|------------------------------------------------|
| Blinking | Data transmission or receiving is occurring    |
| On       | No data transmission or receiving is occurring |

(Note) To enable the Q-Flash Plus function, refer to "Chapter 3" of the manual.

### ❶ Line Out

The line out jack. For better sound quality, it is recommended that you connect your headphone/speaker to this jack (actual effects may vary by the device being used).

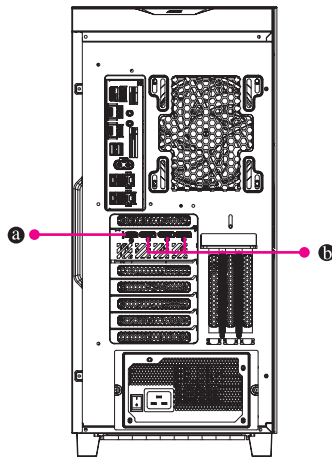
### ❷ Mic In

The mic in jack. The mic in jack supports only mono microphone input.

☞ Please visit GIGABYTE's website for details on configuring the audio software.  
<https://www.gigabyte.com/WebPage/697/realtek897-audio.html>



- When removing the cable connected to a back panel connector, first remove the cable from your device and then remove it from the motherboard.
- When removing the cable, pull it straight out from the connector. Do not rock it side to side to prevent an electrical short inside the cable connector.



**Back View-B**

**a HDMI Port**



The connector supports HDMI 2.1b version.

**b DisplayPort**

The connector supports DisplayPort 2.1b version.

## 1-3 Getting Started



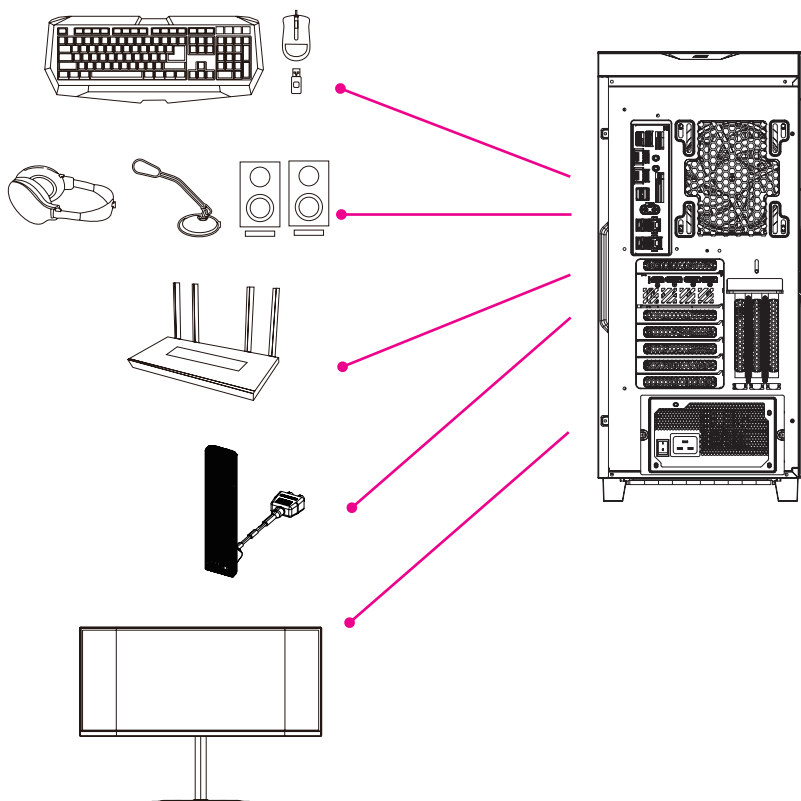
- This product is designed and intended to be used in vertical position only.
- Peripheral devices are not included.
- We recommend that you connect the monitor cable to the graphics card.



Before making the connections, please open the case and remove the protection foam bag inside.

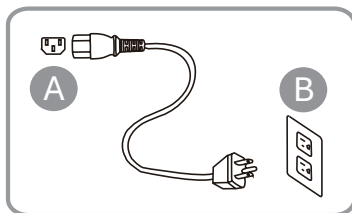
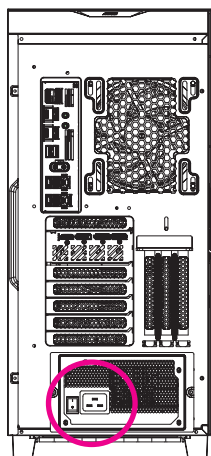
### Connecting Peripheral Devices

Connect your peripheral devices such as keyboard, mouse, monitor, and etc. to the desktop computer.



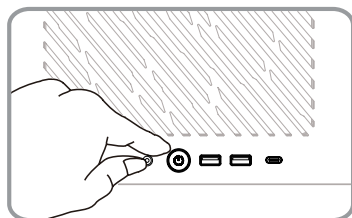
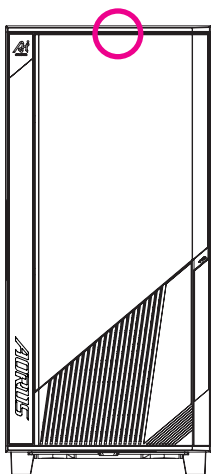
## Connecting the Power Cord

Connect the included power cord to the desktop computer and a power outlet.



## Turning on

Press the power button to turn on the desktop computer.



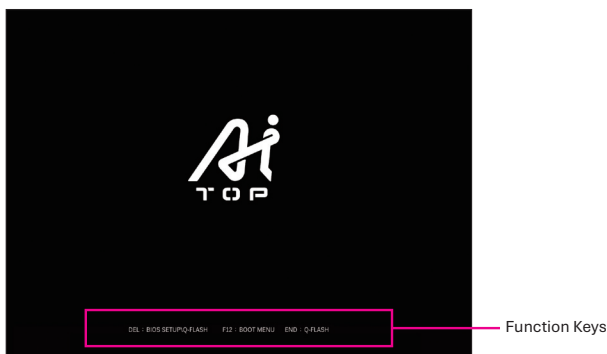
## Chapter 2 BIOS Setup

### Entering the BIOS Setup

To access the BIOS Setup program, press the <Delete> key during the POST when the power is turned on. When the power is turned off, the battery on the motherboard supplies the necessary power to the CMOS to keep the configuration values in the CMOS.

#### Startup Screen

The following startup Logo screen will appear when the computer boots.



#### Function Keys:

##### <DEL>: BIOS SETUP\Q-FLASH

Press the <Delete> key to enter BIOS Setup or to access the Q-Flash utility in BIOS Setup.

##### <F12>: BOOT MENU

Boot Menu allows you to set the first boot device without entering BIOS Setup. In Boot Menu, use the up arrow key <↑> or the down arrow key <↓> to select the first boot device, then press <Enter> to accept. The system will boot from the device immediately.

Note: The setting in Boot Menu is effective for one time only. After system restart, the device boot order will still be based on BIOS Setup settings.

##### <END>: Q-FLASH

Press the <End> key to access the Q-Flash utility directly without having to enter BIOS Setup first.



- Because BIOS flashing is potentially risky, if you do not encounter problems using the current version of BIOS, it is recommended that you not flash the BIOS. To flash the BIOS, do it with caution. Inadequate BIOS flashing may result in system malfunction.
- It is recommended that you not alter the default settings (unless you need to) to prevent system instability or other unexpected results. Inadequately altering the settings may result in system's failure to boot. If this occurs, try to clear the CMOS values and reset the board to default values. (Refer to the "Load Optimized Defaults" section for how to clear the CMOS values.)

## Chapter 3 Appendix

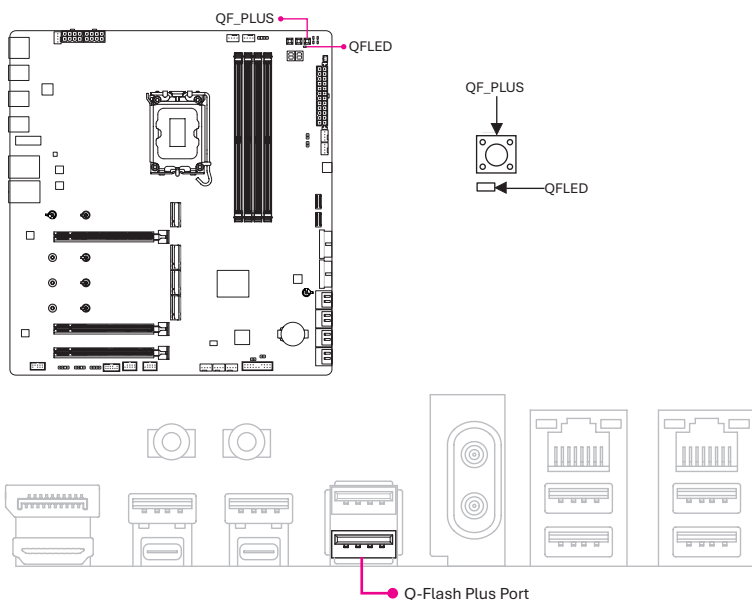
### 3-1 Using Q-Flash Plus

#### A. Before You Begin

1. From GIGABYTE's website, download the latest compressed BIOS update file that matches your product model.
2. Uncompress the downloaded BIOS file, save it to your USB flash drive, and rename it to **GIGABYTE.bin**. Note: The USB flash drive must use the FAT32/16 file system.
3. Connect the power cables to the 12V power connector (connect either one if there are two) and main power connector.
4. Please turn on the power supply before connecting the USB flash drive to the Q-Flash Plus port on the back panel.

#### B. Using Q-Flash Plus

Press the Q-Flash Plus button and the system will automatically search and match the BIOS file in the USB flash drive on the Q-Flash Plus port. The QFLED will flash during the BIOS matching and flashing process. Wait for 6-8 minutes and the LEDs will stop flashing when the BIOS flashing is complete.



- If you choose to update the BIOS manually, first make sure that your system is off (S5 shutdown state).
- If your motherboard has a BIOS switch and a SB switch, reset them to their default settings. (Default setting for the BIOS switch: Boot from the main BIOS; default setting for the SB switch: Dual BIOS)
- The DualBIOS™ feature will continue to update the backup BIOS after the main BIOS has been flashed and the system restarts. After completion, the system will reboot again and boot from the main BIOS.

## 3-2 Installing the Operating System

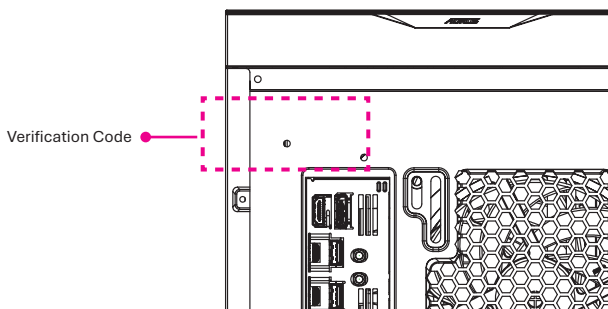
Depending on the system configuration at the time of purchase, the operating system will be installed using one of the following methods: via a product key or through OA3.0 activation.

- **Verification Code:**

If the purchase specifications include an operating system, please refer to the following steps: According to the instructions on the case, remove all protective materials, correctly connect the power and other interface devices, and press the system power button to enter the Windows Out-of-Box Experience (OOBE) screen. When the screen appears, please enter your Microsoft account to log in (if you do not have a Microsoft account, you can choose 'Create a new account now'). Next, simply follow the on-screen instructions to complete the basic OOBE setup. Once this process is complete, it will automatically enter the Windows 11 desktop.



- For the United States and Canada regions, there is a verification code attached to the upper left corner of the case back panel (as shown in the picture). If product repair is required, this verification code must be provided. Please keep it safe and it is recommended to take a photo backup for any future use.
- Before installation, please ensure that the system is connected to the internet.



- **OA3.0:**

#### First-Time Startup

When you start the computer for the first time, the Windows® operating system will guide you through a series of setup screens. Please follow the on-screen instructions to complete the basic personalization settings. The setup items include:

- Personalize
- Get online
- Settings
- Your account

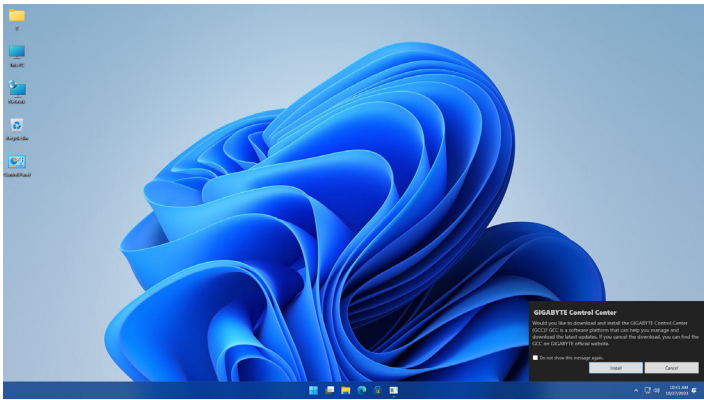
After completing the basic setup steps, Windows® will begin installing applications and applying your preferences. Please ensure that the computer is connected to a stable and sufficient power source during the setup process. Once you have successfully signed in to your user account, the desktop screen will appear.



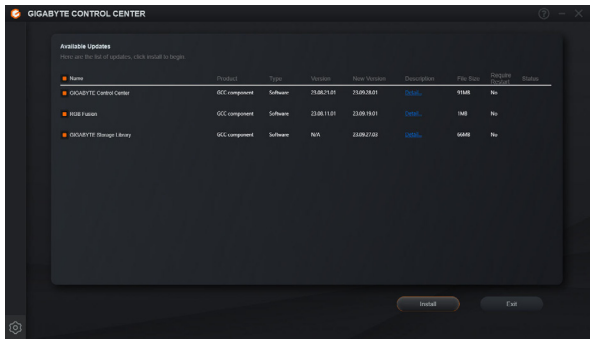
The appearance of the operating system may vary depending on your actual usage and configuration.

**A. Install the Motherboard Drivers**

After you install the operating system, a dialog box will appear on the bottom-right corner of the desktop asking if you want to download and install the motherboard drivers and GIGABYTE applications via GIGABYTE Control Center (GCC). Click **Install** to proceed with the installation. (In BIOS Setup, make sure **Settings\IO Ports\Gigabyte Utilities Downloader Configuration\Gigabyte Utilities Downloader** is set to **Enabled**.)



When the EULA (End User License Agreement) dialog box appears, press <Accept> to install GIGABYTE Control Center (GCC). On the GIGABYTE CONTROL CENTER screen, select the drivers and applications you want to install and click **Install**.



**B. Install the Graphics Card Drivers**

Please download the graphics card driver and utilities from GIGABYTE's website.

## System recovery (Restore your operating system)

When something is going wrong with the laptop operating system, the storage of the laptop has a hidden partition containing a full back up image of the operating system that can be used to restore the system to factory default settings.



- If the storage has been switched or the partition deleted, the recovery option will no longer be available and a recovery service will be needed.
- The recovery function is only available on devices with O/S preinstalled. Devices with EFI SHELL do not have the recovery function.

## Launch system recovery

The system recovery feature is preinstalled before the laptop is shipped from the factory. The option menu allows you to launch the Windows recovery tool to reinstall the operating system to factory default. The brief introduction below will show you how to start the recovery tool and restore your system.

Recovery Guide:

Step 1:

Turn off and restart the system.

Step 2:

During the turn on process, press and hold F9 key to launch the tool.

Step 3:



Choose "Troubleshoot" to enter the recovery settings. (Also you can choose "Continue" to exit recovery system and continue to System for files or data backup.)



There are two options for system recovery:

- **Reset this PC:**  
You can choose to keep or remove your files and then reinstalls Windows without losing your files.
- **Smart Recovery:**  
Your PC settings will be restored to factory default settings. Caution: All personal data and files will be lost.

Step 4:



The recovery will be activated and you will see the option buttons on the window. Click on "Yes" to start it.



- Once the "Recovery" is selected, your personal data and files will be deleted after the laptop starts restoring, and the operating system will be reset to factory default settings.
- A progress indicator bar will show on the window when the recovery process is running. Do not turn off the power.

After the system recovery is completed, you will see the option button on the window, please click on "Shutdown".

## Step 5:



### Advanced options



#### System Restore

Use a restore point recorded on your PC to restore Windows.



#### System Image Recovery

Recover Windows using a specific system image file.



#### Startup Repair

Fix problems that keep Windows from loading.



#### Command Prompt

Use the Command Prompt for advanced troubleshooting.



#### UEFI Firmware Settings

Change settings in your PC's UEFI firmware.



#### Startup Settings

Change Windows Startup behavior.

## PRODUCT WARRANTY GENERAL INFORMATION

- **Qualified Purchases.** Purchasers (“Purchaser” or “you”) of GIGABYTE / AORUS / Desktop PC, Desktop Computer & Tower PC (“Products”) are provided warranty protection from the date of purchase. Our warranty applies to brand new Products sold by authorized resellers, retailers, and distributors (“Suppliers”), and may not apply to items purchased “Used”, “Open-Box” or “Refurbished” unless expressly stated by GIGABYTE / AORUS. Our warranty does not apply to extended service warranties / upgrades issued by Suppliers themselves or other third parties; in such cases, please send your claims / requests / inquiries directly to the third-party issuer. Taking your product to be serviced by a repair shop that is not affiliated with or an authorized dealer of GIGABYTE / AORUS and/or using 3rd party replacement parts will not void this warranty, unless such service/part use itself results in damage to the product.
- **Proof of Purchase.** Purchasers are required to provide a valid receipt or invoice with readable date of purchase and dealer name. If you cannot provide a valid proof of purchase for a new product, GIGABYTE / AORUS reserves the right to reject the warranty service or adjust the period of warranty service.
- **Registration.** To benefit from comprehensive warranty service, Purchasers must first complete product registration of global warranty service. Some warranty services may not be available if the consumers have not completed the product registration process. Register your products at: <https://profile.gigabyte.com/Login.aspx?S=GIGABYTE>
- **Personal Data.** The personal data collected during the product registration will be used by GIGABYTE / AORUS and the authorized service centers in accordance with our Privacy Policy (<https://profile.gigabyte.com/PrivacyPolicy.aspx?l=en-US>), solely for the purposes of providing product service.

## WARRANTY SERVICE DETAILS

- When Purchasers encounter issues of product quality during the period of product warranty, GIGABYTE / AORUS will provide services per the terms of the applicable warranty. Replacement parts provided via warranty service will be of the same specifications and quality as the original parts and will be provided under warranty terms consistent with the original products. Parts that have been replaced during service become property of Gigabyte / AORUS.
- To ensure the efficiency of warranty service, Gigabyte will provide repair services to Consumers utilizing components supplied by the local authorized service center when Consumers request the service of global warranty in a different region. You will need to wait for shipment of the requested parts if you ask for specific components.
- After the Product has been used beyond the warranty period provided by GIGABYTE / AORUS, a corresponding service fee will be charged according to the repair/replace components and service items.
- The GIGABYTE / AORUS Global repair Center will complete the repair service for you as soon as possible after receiving your product, but the repair time will be affected if the repair components are not available locally. You will need to wait for the shipment of the requested parts if you ask for specific components.
- GIGABYTE provides an online query system for service status. To check the status of repair service, prepare your RMA number and be ready to provide any other information the query system requests. You can make a Repair Status Inquiry easily by going to: <https://www.gigabyte.com/Support/Consumer/Repair/Track>
- For more information about Service / Support, please click: <https://www.gigabyte.com/Support/Consumer>

## WARRANTY EXCLUSIONS AND DISCLAIMERS

- No Accessories Covered. The Product warranty does not cover bundle accessories like software installation disc / user manual/related packaging consumables, or promotional gift items like peripheral devices/carrying bags/backpacks provided by GIGABYTE / AORUS.
- Exclusions. If there is any Product damage/abnormality that cannot be attributed to GIGABYTE / AORUS during the warranty period, such as the conditions described below, the Product will not be covered by the warranty and the Purchaser will be responsible for the cost of service. GIGABYTE / AORUS reserves the right to make determinations regarding the cause of Product failure.
  - \* Natural disasters, accidents or customer induced damage.
  - \* Use of components not listed in the approved parts list (QVL) of GIGABYTE / AORUS Desktop PC products.
  - \* Abnormal product use for purposes of testing or evaluation.
  - \* The purchaser does not use the Product according to the Product-related usage guidelines.
- 3rd Party Warranties. The warranty for extended service or upgrade provided by Suppliers or other third-party resellers shall be the sole responsibility of such third parties and not GIGABYTE / AORUS.
- Serial Numbers. The global warranty will be voided if the serial-number sticker attached to the product is missing or unable to be recognized and the product/warranty status cannot be identified.
- Loss of Data. Personal data stored in the Product may be lost during the repair or the system restoring process. Purchasers need to complete the backup of personal data before the Product is sent for repair. GIGABYTE / AORUS will not be responsible for the loss and/or rescue of personal data during or after the repair process.
- Shipping and Taxes. Shipping and taxes for global warranty will be the responsibility of the Purchaser.
- Packaging. It is recommended that Purchasers choose packaging material that provides high-level protection or use the original packaging when shipping the product to ensure the safety of the product during delivery.



## Contact Us

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### GIGA-BYTE TECHNOLOGY CO., LTD.

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Tech. and Non-Tech. Support (Sales/Marketing) : <https://esupport.gigabyte.com>

WEB address (English): <https://www.gigabyte.com>

WEB address (Chinese): <https://www.gigabyte.com/tw>

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- **GIGABYTE eSupport**

To submit a technical or non-technical (Sales/Marketing) question, please link to:  
<https://esupport.gigabyte.com>

The screenshot shows the GIGABYTE eSupport homepage. At the top, the GIGABYTE logo is on the left. The main heading is "Welcome to eSupport" in blue. Below it, a subheading reads: "Submit your product/sponsorship/marketing questions or inquiries, and our representative will respond in a timely fashion." The page is divided into three main sections: 1. NEWS: A box with the text "Your submissions will be displayed in your personal page, log in to see the processing status." 2. SIGN IN: A box containing fields for "Account" and "Password", a "sign in with" section with social media icons (Facebook, Google, Twitter, Microsoft), and links for "Register", "Forgot Password", and a blue "SIGN IN" button. 3. QUICK LINK: A box with three icons and labels: "Downloads" (cloud icon), "FAQ" (speech bubble icon), and "Warranty" (shield icon).